REMARKS

The Office Action dated June 27, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

By this Response, claims 1-18 have been amended to more particularly point out and distinctly claim the subject matter of the present invention, and new claims 19-21 were added. No new matter has been added. Support for the above amendments is provided in the Specification on at least paragraph [0031] to paragraph [0039]. Accordingly, claims 1-21 are currently pending in the application, of which claims 1, 12, and 15 are independent claims.

In view of the above amendments and the following remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending rejections to the claims for the reasons discussed below.

Claim Rejections Under 35 U.S.C. §102(e)

The Office Action rejected claims 1-3 and 5-18 under 35 U.S.C. §102(e) as allegedly anticipated by Tasman, *et al.* (U.S. Patent Publication No. 2002/0080755) ("Tasman"). The Office Action alleged that Tasman discloses every claim feature recited in claims 1-3 and 5-18.

Claim 1, upon which claims 2-3 and 5-11 are dependent recites a method of traffic and resource control in a wireless communication device including a plurality of operation

modes. The method includes assembling data units of at least one incoming data stream into an output data stream, selecting, in response to the assembling, a first set of radio transmission resources for the output data stream, searching for a path that leads from the wireless communication device to one of the at least one destination node and fulfills the service level requirement corresponding to that destination node when one leg of the path is implemented by the first set of radio transmission resources, and scheduling a transmission of the output data stream when the path is found for each of the at least one destination node. The data units are destined for at least one destination node. Each destination node includes a service level requirement. The first set of radio transmission resources belongs to radio transmission resources available in the wireless communication device. The searching is performed with respect to each of the at least one destination node. The scheduling presumes that the transmission is to occur through the first set of radio transmission resources

Claim 12, upon which claims 13-14 are dependent recites a system for traffic and resource control in a wireless communication device including a plurality of operation modes. The system includes traffic assembly means for assembling incoming data unit streams into an output data stream, resource selection means, responsive to the traffic assembly means, for selecting a first set of radio transmission resources for the output data stream, routing means for searching for a path that leads to one of the at least one destination node and fulfills the service level requirement corresponding to that destination node when one leg of the path is implemented by the first set of radio transmission

resources, and traffic scheduling means for scheduling a transmission of the output data stream when the path is found for each of the at least one destination node. The data units of the output stream are destined for at least one destination node. The output stream includes a service level requirement for each of the at least one destination node. The first set of radio transmission resources belongs to radio transmission resources currently available in the wireless communication device. The routing means for searching for the path is configured to search for the path for each of the at least one destination node. The transmission is scheduled to occur through the first set of radio transmission resources.

Claim 15, upon which claims 16-18 are dependent, recites a wireless communication device including a plurality of operation modes. The wireless communication device includes a traffic assembly unit configured to assemble incoming data unit streams into at least one output data stream, a resource selection unit responsive to the traffic assembly unit and configured to select a first set of radio transmission resources for the output data stream, a path detection unit configured to detect whether a path leading to a destination node and fulfilling the corresponding service level requirement is available for each of the at least one destination node, and a traffic scheduling unit, responsive to the path detection unit, configured to schedule a transmission of the output data stream. The traffic scheduling unit is configured to schedule the transmission to occur through the first set of radio transmission resources. The data units are destined for at least one destination node. Each output data stream includes a service level requirement for each of the at least one destination node. The first set of radio transmission resources belongs to radio

transmission resources currently available in the wireless communication device. One leg of the path is implemented by the first set of transmission resources.

As will be discussed below, Tasman fails to disclose or suggest every claim feature recited in claims 1-3 and 5-18, and therefore fails to provide the features of the claims discussed above.

Tasman is directed to a communications apparatus in a communications network provided for communication among a plurality of communication apparatuses. The communication apparatus routes messages for neighboring apparatuses. The communication apparatus includes a memory, a processor, and a transceiver. (Tasman, Abstract; page 2, paragraphs [0015] – [0020])

Applicants respectfully submit that Tasman fails to disclose or suggest every claim feature recited in claim 1, and similarly in claims 12 and 15. Specifically, Tasman fails to disclose or suggest the following steps and interrelationship between the steps:

> A method of traffic and resource control in a wireless communication device comprising a plurality of operation modes, the method comprising:
>
> assembling data units of at least one incoming data stream into an output data stream, wherein the data units are destined for at least one destination node, and each destination node comprises a service level requirement;
>
> selecting, in response to the assembling, a first set of radio transmission resources for the output data stream, wherein the first set of radio transmission resources belongs to radio transmission resources available in the wireless communication device;

searching for a path that leads from the wireless communication device to one of the at least one destination node and fulfills the service level requirement corresponding to that destination node when one leg of the path is implemented by the first set of radio transmission resources, wherein the searching is performed with respect to each of the at least one destination node; and

scheduling a transmission of the output data stream when the path is found for each of the at least one destination, wherein the scheduling presumes that the transmission is to occur through the first set of radio transmission resources (emphasis added)

as recited in claim 1, and similarly in claims 12 and 15.

Rather, Tasman discloses a communications apparatus provided with multiple routing managers 12, 13, 14. Tasman further discloses a communications apparatus provided with a dedicated routing manager for each traffic type, such as unicast, multicast, and broadcast traffic. Each routing manager 12, 13, 14 creates and/or maintains a set of routing tables for the appropriate traffic type. The apparatus includes a multi-layered architecture in which each layer communicates with the layer above and/or below it. The lowermost layer, radio layer 10, communications with a forwarding layer 17 above it, although there may be a queuing layer therebetween. (Tasman, paragraphs [0044], [0045], and [0055])

Thus, when a packet is transmitted, the mobile station first selects a routing manager that corresponds to the traffic type of the packet. The routing is carried out based on the destination address of the packet, i.e. the correct routing manager is selected based on whether the destination address is unicast, multicast, or a broadcast address. The routing tables, managed by the selected routing manager, are then utilized to produce

routing information, control information for the radio layer, and an indication of a correct queuing for the packet. This is carried out by means of a type-of-service indicator attached to the packet and indicative of the quality of service required by the packet. The control information is in the form of a radio profile supplied to the radio layer 10 together with the packet. The radio profile includes transmission parameters for the packet, such as transmission power, frequency, and data rate.

The radio layer 10 selects the physical transmission resources of the mobile station so that the transmission occurs according to the transmission parameters. The radio layer 10 may record detailed statistics on the actual transmissions performed by maintaining so-called trace records which are indicative of the radio capabilities of the mobile station. A link metric calculator periodically retrieves information from the trace records and the routing managers may use the retrieved data, thereby to ascertain that the current radio capabilities of the mobile station are taken into account in the routing and control information determined. (Tasman, paragraphs [0046] to [0130])

Further, Tasman discloses mobile station 2, but fails to disclose or suggest mobile station 2 includes "a plurality of operation modes." Tasman further fails to utilize its own physical and radio resources optimally, since the routing information and the radio profile are always determined before the packet is supplied to the radio layer 10. The selection of the radio transmission resources is thus restricted by the routing information and the radio profile. Tasman further fails to disclose or suggest "assembling data units of at least one incoming data stream into an output stream;" rather, Tasman discloses that each

packet is forwarded separately through the radio layer 10 to the correct neighbor with the correct radio profile under a selected queuing principle. (Tasman, paragraphs [0045] and [0101]) Accordingly, Tasman fails to disclose or suggest the steps and the interrelationship between the steps recited in claims 1, and similarly recited in claims 12 and 15.

Claims 2-3 and 5-11 depend from claim 1. Claims 13-14 depend from claim 12. Claims 16-18 depend from claim 15. Accordingly, claims 2-3, 5-11, 13-14, and 16-18 should be allowable for at least their dependency upon an allowable base claim, and for the limitations recited therein.

Therefore, Applicants respectfully request withdrawal of the rejection of claims 1-3 and 5-18 under 35 U.S.C. §102(e), and respectfully submit that claims 1, 12, and 15, and the claims that depend therefrom, and now in condition for allowance.

Claim Rejections under 35 U.S.C. §103(a)

The Office Action rejected claim 4 under 35 U.S.C. §103(a) as allegedly unpatentable as obvious over Tasman. The Office Action alleged that Tasman discloses or suggests every claim feature with the exception of "choosing second set of resources and repeating the searching step for the second step." (See Office Action on page 7)

As will be discussed below, Tasman fails to disclose or suggest every claim feature recited in claim 4, and therefore fails to provide the features of the claims discussed above.

Tasman was disclosed above. As noted above, Tasman fails to disclose or suggest every claim feature recited in claim 1. Claim 4 depends from claim 1. Accordingly, claim 4 should be allowable for at least its dependency upon an allowable base claim, and for the limitations recited therein.

Therefore, Applicants respectfully request withdrawal of the rejection of claim 4 under 35 U.S.C. §103(a), and respectfully submit that claim 4 is in condition for allowance.

New Claims 19-21

As noted above, Applicants respectfully submit that Tasman fails to disclose or suggest every claim feature recited in claims 1, 12, and 15. Claims 19-21 depend from claims 1, 12, and 15, respectively. Accordingly, claims 19-21 should be allowable for at least their dependency upon an allowable base claim, and for the limitations recited therein.

Therefore, Applicants respectfully submit that claims 19-21 are in condition for allowance.

CONCLUSION

In conclusion, Applicants respectfully submit that Tasman fails to disclose or suggest every claim feature recited in claims 1-21. The distinctions previously noted are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-21 be allowed, and this present application passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: Additional Claim Fee Transmittal / Check No. 17098